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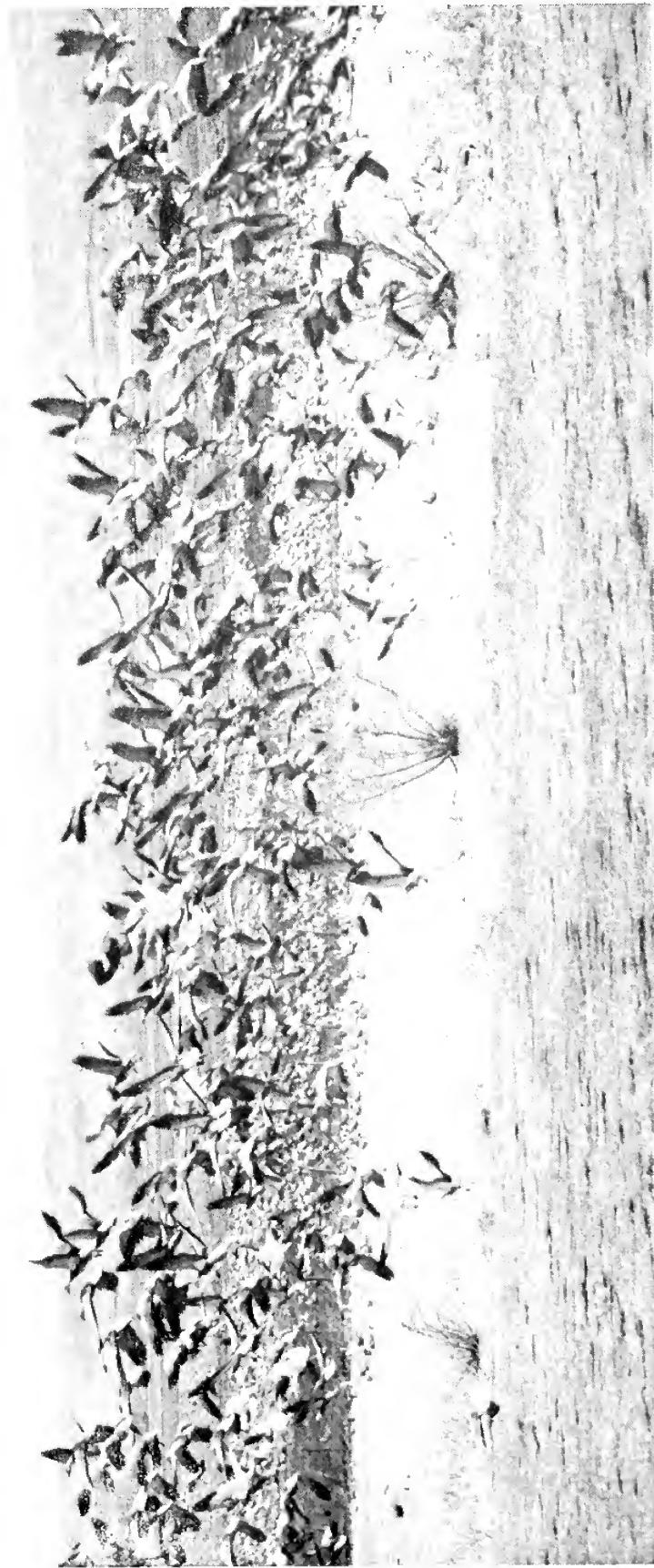
The central design of the Union's official seal is the Eastern Goldfinch, designated State Bird of Iowa in 1933.

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"THE SPRING FLIGHT OF BLUE AND SNOW GEESE INTO AND THROUGH IOWA IS THE MOST SPECTACULAR MIGRATORY EVENT OF THE YEAR"

This picture, which was taken by a Des Moines Register and Tribune photographer in southwestern Iowa, is so appropriate for Mr. Sieb's article we have taken it from our cut file and are reprinting it from the December, 1917, issue of "Iowa Bird Life." Ed.

THE WATERFOWL STORY IN IOWA*

By JAMES G. SIEH
Iowa Conservation Commission
OKOBONI, IOWA

In a geographical area the size of the State of Iowa there are many unknowns in the practicable study of waterfowl. Scientific application to this study is relatively new on a continental, as well as a state, basis. Populations of waterfowl are notoriously difficult to study because they are mobile to the nth degree, and just about the time we think we understand or can predict the activities of wildfowl in a local area of a few hundred acres of lake or marsh, we are often fooled. To pretend to understand the complex structure of waterfowl dynamics on a state-wide basis is pure folly. There are many unknowns surrounding the simple problem of why local marshes retain a few breeding pairs one season, and perhaps twice as many the next. The purpose of this paper is to very briefly acquaint fellow students of waterfowl with some of the basic elements of the waterfowl story in Iowa. This story is not complete and never will be as long as wildfowl grace our continent. The immediate changes yet to come, wrought by the hands of men or nature, will write new chapters in the history of waterfowl, and unfortunately, from a scientific standpoint, the past is well shrouded in the mystery of fact and fancy.

Iowa comprises some of the most valuable and intensively cultivated land on the face of the earth. On the east, the state is bordered by the Mississippi River, famous as a migratory artery for wildfowl as well as for other species. On the west, below Sioux City, Iowa, it is bordered by the Missouri River, an equally important migratory route. Between these age-old travel lanes the state comprises some 56,000 square miles with a lineal east-west dimension of approximately 300 miles and a north-south distance of some 200 miles. The eastern half of Iowa is diagonally subdivided in a southeasterly direction by four larger rivers that function as migratory capillaries to the main stem of the Mississippi River flyway. On the west, numerous small tributary streams empty into the Missouri in a south, southwesterly direction. Although normal migration probably tends to follow roughly the configuration of the major rivers and their tributaries, mass migration overland sometimes takes place.

Eastern Iowa in general is rolling terrain cut by rivers and creeks with practically no glacial lakes or potholes. River overflows and marshes are no longer numerous, although along reaches of the Wapsipinicon and neighboring rivers there are still some remnants of good waterfowl habitat. Central Iowa contained a few glacial lakes, but practically all marshes and prairie potholes have been drained for agricultural purposes. The rolling farm land in southern Iowa is not generally considered waterfowl habitat except along some river and stream overflows. North central and northwestern Iowa were blessed with numerous glacial lakes, marshes, and prairie potholes which once produced waterfowl on an equal basis with the pothole areas of the Dakotas or southern Minnesota. Only a remnant of the waterfowl-producing areas of northwest and north-central Iowa remain. The Missouri river flood plain is now well diked, ditched, and drained, and produces relatively few waterfowl. The Mississippi River bottoms and other Iowa streams are producing more Wood Ducks than in the recent past.

Iowa once produced an estimated 3 to 4 million ducks annually (Janzen, 1952). This number has dwindled to new lows because of continuous habitat removal on private lands. Total annual production, excluding Wood Ducks,

*This paper was presented at the Fourteenth Midwest Wildlife Conference, at Des Moines, Iowa, December 19, 1952.

can probably be measured in the thousands or tens-of-thousands today, when compared with the millions of yesterday. This is a sad admission to make, but a sober warning to neighboring states to safeguard every acre of waterfowl habitat possible, and to do it now. The advent of pump and hose irrigation from surface water supplies of lakes, streams, marshes and prairie potholes has already begun in the drier farming areas of the Dakotas and Nebraska. This could do great damage to the remaining waterfowl producing areas there, much the same as ditching and tile drainage have already accomplished in Iowa. We have learned the hard way that once habitat is lost, it is both more expensive and more difficult, if not impossible to restore. For the biennium ending June 30, 1950, approximately 54,000 acres have been listed as state-owned public hunting grounds for waterfowl (Iowa State Cons. Comm., 1951). Half of this total was listed as open water (lakes) refuge, and cannot be considered as good nesting habitat. The additional river or stream acreage, which would amount to a substantial sum, is not included in the total; nor is the acreage of several smaller refuges which represent good nesting habitat. Iowa has a successful land acquisition and habitat development program in operation, but only a small proportion of former nesting areas can ever be rehabilitated.

The migration of wildfowl along the Mississippi River has been treated by many students who have spent years studying the Mississippi valley flights. The writer can add little to the picture of waterfowl along the eastern shore of Iowa. He has worked in the lakes and marsh region of northwest Iowa, and can provide a general picture of this small section of waterfowl habitat remaining in the state. One of the largest and most impressive concentrations of Blue and Snow Geese in North America still spend part of the early spring in the Missouri River flats of southwestern and western Iowa. This concentration has been witnessed by many people, and the size of the aggregate concentration is of significance to the over-all population of the species. The numbers of geese that have passed through Iowa is questioned each year by competent observers, and there is considerable conjecture each season as to the accuracy of one or another estimate. It is difficult to estimate a mobile population of any species, and these Blue and Snow Geese are no exception. During the last few springs estimates running as high as 500,000 migrants and even higher have been common. In any event, competent observers have agreed on one thing, and that is, the trend of the numbers of these geese in Iowa has been upward and not downward, and the increase has been considerable.

Some of you have not had the opportunity to observe the spring movements of Blue and Snow Geese and I would like to describe the phenomena. While the inland lakes and marshes of Iowa, Minnesota and the Dakotas are still ice-locked, the spring thaws come early on the black ground of the Lower Missouri River flats and hasten the break-up of the Big Muddy. As the warm spring sun on the black plowing melts the snow, and frost disappears from the ground, the geese arrive in southwest Iowa. Single flocks are not unusual, but a series or group of flocks united in wedge-shaped ranks totaling several hundred or a few thousand birds are more common. These harbingers of spring, like falling leaves, alight in the fields. Here they feed on waste grain, preen, and rest, awaiting the next leg of their northward journey. Their garrulous honking and careless flight back and forth from field to field provide sight and sound to be long cherished in memory. Their visit in Iowa is short, only a few days or weeks, depending upon the weather. The geese do not wait for the rivers and lakes to open, but push northward as soon as melt-water in the fields permits them any advance toward the nesting grounds. Blizzards of greater or lesser violence often force these

hardy voyageurs back south, but this is only a temporary setback for the birds revel in bad weather, and spring blizzards do not take a heavy toll.

The geese take different routes northward from the larger concentrations in southwestern and western Iowa. Some push west and north up the valley and tributaries of the Platte River into Nebraska. Others continue on up the valley of the Missouri, and many of these head due north up the valley of the tributary James River into the Dakotas. Some move into the Bigstone-Lake Traverse area probably by way of the Little and Big Sioux River valleys. At each step of the journey the Blue and Snow Geese do not necessarily follow any topographic configuration, but utilize the most accessible airway along the path of melting snow and running water. Rapid thaw on the prairies probably causes more overland distribution and dispersion of the flocks during spring migration. There are other important concentration points along the prairie routes to the nesting grounds, but this ends the brief saga of the Blues and Snows in Iowa.

Jack and Mary Musgrave in their book, "Waterfowl in Iowa", have indicated in plate form the concentration points of the Blue and Snow Geese in western Iowa. Incidents in the life history could be added by large scale banding efforts at these points. The spring flight of Blue and Snow Geese into and through Iowa is the most spectacular migratory event of the year, but not the only one. The Missouri River valley is a main flight artery of the Central Flyway for all the common species of wildfowl.

The spring migration of waterfowl overland and through central Iowa appear directly geared to weather and surface water present. The calendar dates are likewise important. The interior of Iowa is intensively cultivated and natural drainage has been aided by uncountable miles of tile and other artificial drainage systems. Waterfowl have adapted themselves to the change as far as migration is concerned. In the early spring, when ample runoff provides available surface water, and waste grain is plentiful in the flooded fields, both divers and puddle ducks may become numerous throughout central Iowa. During this period the ground is still frozen and the tile drainage systems do not function. As soon as the ground thaws enough to permit rapid sub-surface drainage, the birds move on northward. Local concentrations of spring migrants are found in the natural lake and marsh regions of northwestern Iowa, but in years of late break-up, these lakes and sloughs are largely bypassed. As a rule, a sizeable concentration of Mallards, Lesser Scaup, and Blue-Winged Teal can be depended upon, but there are exceptions. Under normal conditions the lake region of northern Iowa acts as a host to modest numbers of ducks and geese. All recent indications point to reduced numbers of spring migrants through the lakes region.

Some of the best waterfowl habitat remaining in northern Iowa is locally known as the "Ruthven Area" and is located in Clay and Palo Alto Counties. The numbers of spring migrants have been estimated by students of the Cooperative Wildlife Research Unit, Iowa State College. Glover (1950) estimated 176,000 ducks, geese, and Coots, representing 21 species present in the area during the spring of 1948. In 1949, he estimated 220,000 waterfowl representing 23 species — an increase of 26 percent. Other observers—Bennett, Low, and Provost—estimated the number of spring migrants in the same area in 1934, 1938 and 1942, respectively. Glover concluded that his estimates indicated an 80 percent decrease in total numbers of migrant waterfowl compared with the earlier three estimates, each totaling close to a million or more birds. The decrease in the total numbers of Mallards and Pintails from 1934 to 1949 was the most noticeable.

Less intensive but more widespread observations in northwestern Iowa and in the Ruthven Area by the writer during the spring of 1949, 1950, 1951 and 1952 concurred with Glover's observations and indicated that migrant

numbers have continued to remain low. Since 1950, Pintails have been noticeably few during the spring migration in the lakes region. Mallards have not been present in numbers comparable with earlier estimates. It is the opinion of the writer that large numbers of migrant Mallards, and Pintails shifted eastward into Iowa during the severe drouth of the early and middle thirties to avoid the drier areas of Nebraska and the Dakotas; but a shift of migrant populations back westward does not explain a continued downward trend of spring migrants through northwestern Iowa in recent years. Ups and downs in migratory numbers in this or other areas are normal, but a downward trend in spring migration, if true, is a much more serious matter.

Waterfowl push north up the Mississippi and Missouri River valleys ahead of the spring migration into north central or northwestern Iowa. The spring thaw usually advances northward more quickly along these two great rivers. In the lakes region the first spring migrants to arrive are the American Mergansers, the Mallards, and the Pintails. These early arrivals congregate near any source of open water while most of the landscape is still covered with ice and snow. Arrival dates vary, but March 10 to 20 would be near average. Practically all the Mallards are paired when they arrive; Glover estimated 80 percent were paired upon arrival. Close behind follow the American Golden-eye, the Red-breasted Merganser, Lesser Scaup, Ring-necks, Canvasback, and Red-head. The Blue and Snow Geese usually arrive before the White-fronts and the Canadas. The Green-winged Teal, Coot, Hooded Merganser, and Shovelers filter in just ahead of the Gadwall, Baldpate, and Wood Duck. Last of all, the Blue-winged Teal, Bufflehead and Ruddy Ducks arrive.

These migrants remain in the lakes region from a few days to several weeks. Of the 23 species named, only six of the ducks, the Hooded Mergansers, and the Coot can be considered as nesters in Iowa at the present time. The number of nesting Pintails, Canvasbacks, and Redheads have decreased appreciably during the last 15 years. Nesting Canvasbacks have become rare. Adult Lesser Scaup remain in the state well into the nesting season, but no nests, eggs, nor broods have been observed during the last four summers. The number of nesting Ruddy Ducks has been up and down. Blue-winged Teal, Mallards, and Wood Ducks have continued to provide the bulk of waterfowl production in Iowa. Only the Wood Duck has measurably increased its breeding range and density in Iowa during the last ten years.

It is difficult to realize that prior to 1900 there were an estimated six million acres of waterfowl nesting and rearing habitat in this state (Bennet, 1938). This habitat represented almost 1/8 of the entire surface acreage of Iowa. By 1938, only an estimated 50,000 acres of equivalent habitat remained (as cited above), and since then there has been continuous removal of many of the remaining 50,000 acres on private land. The production of waterfowl on private land has been reduced to such an extent that it is practically inconceivable today. This situation is deplorable from the standpoint of waterfowl production, but in the eyes of agriculturalists there is no alternative. There is no immediate happy medium from an economic standpoint, and we have to face facts.

There has been a steady increase in duck stamp sales. In 1934-35 there were 16,129 duck stamps sold in Iowa, and by 1951-52 there were 62,169 stamps sold. This represents an almost four-fold increase, and added hunting pressure. Except for the Wood Duck, the waterfowl harvest in Iowa depends largely upon migrant birds. The availability of waterfowl largely determines the species composition of the hunter's bag, as well as hunter success. The number of Blue-winged Teal present in Iowa at the season opening is an important factor in the total harvest of this species. Favorable hunting conditions and coinciding migratory movement of northern Mallards into Iowa

during the open season largely governs the total harvest of Mallards. The harvest of waterfowl in Iowa is dependent upon the number of migrants which pass through the state, and the length of time these ducks remain within its borders.

Prior to the open season there is an annual increase in the numbers of migrants present in the public hunting areas, along the major rivers, and wherever available habitat remains. This pre-season build-up is mostly composed of Blue-winged Teal and Mallards. In 1952, there were more Green-winged Teal present in the lakes region at the opening date (October 8) than in 1949, 1950, or 1951. The seasons in the Dakotas and Minnesota have opened about a week earlier, and this has caused a rapid build-up of migrant birds in Iowa.

The opening afternoon of the waterfowl season disperses the local concentrations of waterfowl. Most competent hunters take their limits the opening afternoon and the following morning. Their bag is usually composed of teal, a Mallard or two if lucky, or some other larger duck. Less fortunate or unskillful hunters often end up with a bird or two, or none at all. The second morning after the opening day finds most of the waterfowl gone. A few are killed, but the pre-season concentrations are gone. The remainder of the waterfowl season depends upon weather and circumstance. There are always a few successful hunters at the right place at the right time, and more of the disgruntled and unfortunate ones. Rarely are there large prolonged concentrations of waterfowl in Iowa during the open season. Migratory movements of major and minor significance usually coincide with cold fronts from the north and west. Minor migratory flurries or drifts have provided some waterfowl throughout the season regardless of the weather. Flights along the Mississippi and Missouri Rivers have provided the most successful shooting from year to year. The larger inland open water refuges and border river refuges retain minor concentrations of Mallards throughout the latter part of the open season. Sometimes these concentrations provide good shooting depending upon weather and local conditions.

Mass migration across Iowa does occur, but this has only been observed once since 1949, and evidently is the exception rather than the rule. This mass migration of approximately 24 hours duration was observed on November 8 and 9 during the fall of 1950. This large overland flight was composed of mostly Mallards, some Lesser Scaup or Ringnecks, and smaller numbers of Canvasbacks. (See MFWC News Letter No. 16). The flight coincided with a cold front from Colorado eastward, freeze-up of the sloughs and potholes, and departure of waterfowl from North and South Dakota and probably elsewhere. Arrivals from this flight were reported from Illinois westward to northwest Iowa, and probably extended to the Missouri River and beyond.

Data on the waterfowl harvest in Iowa has been gathered since 1948 (Sieh, 1951). Conservation officers have recorded on tally cards 30,527 ducks, and 1,856 geese killed by 33,744 hunters. These hunters hunted a total of 77,279 hours during the four open seasons of 1948, 1949, 1950 and 1951. These figures represented only a sample or part of the total waterfowl harvest in Iowa.

The average hunter checked bagged one duck in 1.87 hours of hunting in 1951. In 1950, the same average hunter required 4.1 hours of hunting to kill one duck, 3.2 hours were required in 1949, and 2.3 hours in 1948. The 1951 waterfowl season was by far the most successful duck harvest recorded since 1948. Goose hunting was slightly poorer in 1951 requiring 41.1 hours afield. In 1949, the same average hunter required only 25.4 hunting hours to kill a goose which in 1948 required 17.6 hours afield. Mallards averaged approximately 50% of the sample kill each year. The number and per-

cent of each species recorded during the four open seasons since 1948 are listed in Table I.

COMBINED TOTALS AND PERCENTAGES, 1948-1949-1950-1951—Table I

	Total Recorded Kill By Species 1948	Total Recorded Kill By Species 1949	Total Recorded Kill By Species 1950	Total Recorded Kill By Species 1951
Hunters Seen, Bags Not Checked	3,413	2,807	6,800	
Size of Hunting Party 1	700	523	572	1,198
(man) 2	822	951	979	1,907
(man) 3	417	494	434	800
(man) 4	215	274	192	362
five (5) or more than 5	91	134	91	207
Total Number of Hunters	4,934	5,862	5,170	9,955
Total Hours Hunted	13,926	18,802	19,132	25,419
None Taken:				
Number of Hunters	1,463	2,021	1,921	2,368
Hours Hunted	3,171	5,563	6,340	5,029
Mallard	3,327	2,735	2,344	7,354
Black Duck	38	26	71	168
Gadwall	120	185	98	207
Baldpate	58	34	50	231
Pintail	546	643	291	1,252
G. W. Teal	766	670	399	885
B. W. Teal	174	691	637	1,502
Shoveller	175	192	91	244
Wood Duck	114	133	148	464
Redhead	102	79	62	264
Ring-necked	48	52	26	138
Canvas-back	47	94	43	229
Blue-bill	439	317	351	787
Golden-eye	21	7	9	36
Bufflehead	30	11	9	10
Ruddy Duck	61	24	19	70
Merganser	19	13	18	29
TOTAL DUCKS	6,085	5,906	4,666	13,870
Canada Geese	39	159	73	127
Blue Geese	84	380	181	214
Snow Geese	70	189	180	128
W. F. Geese		9	7	
Other Geese	13	3		
TOTAL GEESE	206	740	441	469
Coots	127	63	344	
Parties with Dogs	300	240	601	
Unretrieved Ducks and Geese	37	45	187	
Parties without Dogs	2,075	2,028	3,873	
Unretrieved Ducks and Geese	260	508	1,680	
TOTAL PARTIES CHECKED	2,375	2,268	4,474	
Banded Ducks Shot Previous Year	1	2	8	

Species	Total Recorded 1948	Total Recorded Kill by Percent 1949	Total Recorded 1950	Total Recorded Kill by Percent 1951
Mallard	54.7%	46.3%	50.2%	53.0%
Black Duck	0.6	0.4	1.5	1.2
Gadwall	2.0	3.1	2.1	1.5
Baldpate	0.9	0.6	1.1	1.7
Pintail	8.9	10.9	6.2	9.0
G. W. Teal	12.6	11.4	8.6	6.4
B. W. Teal	2.9	11.7	13.7	10.8
Shoveller	2.9	3.2	1.9	1.8
Wood Duck	1.9	2.3	3.2	3.3
Redhead	1.7	1.3	1.3	1.9
Ring-necked	0.8	0.9	0.6	1.0
Canvas-back	0.8	1.6	0.9	1.6
Blue-bill	7.2	5.4	7.5	5.7
Golden-eye	0.3	0.1	0.2	0.3
Bufflehead	0.5	0.2	0.2	0.1
Ruddy Duck	1.0	0.4	0.4	0.5
Merganser	0.3	0.2	0.4	0.2
TOTAL DUCKS	100.0%	100.0%	100.0%	100.0%
Canada Geese	19.0%	21.5%	16.6%	27.2%
Blue Geese	41.5	51.3	41.7	45.6
Snow Geese	33.1	25.6	41.5	27.2
W. F. Geese		1.2	0.2	
Other Geese	6.4	0.4		
TOTAL GEESE	100.0%	100.0%	100.0%	100.0%

Iowa's importance as an over-all waterfowl producing state should improve slightly in the future. We have reason to be more optimistic about increased Wood Duck production. The State Conservation Commission under the Federal Aid Section (P-R) has established a successful land acquisition and habitat improvement program. Two penned flocks of wild Canada Geese have been introduced in an effort to re-establish nesting geese within the state. Only a small proportion of former nesting habitat can be reclaimed, but this is inevitable under present economic conditions. Waterfowl hunting in Iowa will continue to depend upon migratory numbers present in the state during the open season. This completes a brief resume of the waterfowl story in Iowa.

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BIRD RESEARCH LIBRARY IS ESTABLISHED AT MOUNT VERNON

Many of our members availed themselves of the opportunity to visit the newly-established Memorial Library of Ornithology at Cornell College during the May convention of our Union. This library, now permanently housed on the fourth floor of the Law Building on the Cornell Campus, Mt. Vernon, promises to become one of the State's fine ornithological collections, rivalling the bird libraries of University of Iowa, at Iowa City, and Iowa State College, Ames.

The foundation of the library was laid by two important collections of bird books—those owned by the late Dr. T. C. Stephens, of Morningside College, and Dr. Charles Reuben Keyes, of Cornell. After acquiring these books the college gave the library permanent quarters in the office of the late Doctor Keyes and adjoining rooms in the fireproof Law Building. Dr. J. Harold Ennis, Curator of the Memorial Library, has an office and his personal library on the same floor of the building. The building also houses the natural history museum, which includes a very fine collection of mounted birds.

As a research library the collection of books will be especially valuable to Cornell students and faculty and to those bird students in eastern Iowa who live near enough to visit it at frequent intervals. Nearly all the important State bird books are included, as well as many rare items such as Audubon's "Ornithological Biography", Wilson's "American Ornithology", and the Pacific Railroad Survey Reports, in 13 volumes. The library's strong point is in bird periodicals. It has full sets of the *Auk*, *Bird-Banding*, *Bird-Lore*, *Bulle-*

tin of Nuttall Ornith. Club, Condor, Iowa Ornithologist, Nidiologist, Oologist, Osprey, Warbler, Wilson Bulletin, and many others.

Doctor Stephens, especially, prided himself in the completeness of his private library of more than a thousand volumes. The present writer had the pleasure of sitting with Dr. Stephens in the library-office of his Sioux City home and visiting with him about birds and books. It is a gratifying thought that the collection upon which the doctor spent so much thought and from which he derived so much pleasure, will remain intact in the new Cornell Memorial Library.

A wall case in the library is a memorial to Dr. T. C. Stephens. It contains his photograph, and a gold medal and citation from the Permanent Wild Life Protection Fund for his work to save the grouse and other birds in Iowa. A similar memorial case is being prepared for Dr. Keyes. About 100 volumes were given to the library by Rev. Charles Carpenter, of Baileyville, Illinois.

Curator Ennis, a former President of our Union, is well known to most of us. He is a faculty member of Cornell, and has been an alumni professor of sociology and economics there since 1938, when he left his teaching position at the University of Nebraska. He has made serious studies of birds over a long period of years, and has taught ornithology for ten years in the Cornell College summer school. The Memorial Library is certain to become an increasingly important institution under the capable management of Dr. Ennis.

—F. J. P.



DR. J. HAROLD ENNIS IN THE MEMORIAL LIBRARY OF ORNITHOLOGY
Photograph by Hugh M. Roberts.

NECROLOGY

Miss Zell Lee, who became a member of the Iowa Ornithologists' Union in 1943, died at Sioux City on June 23, 1953. Burial was in Oakhill Cemetery, Anthon, Iowa. A very fine sketch of her life appeared in the June 24 issue of the Sioux City "Journal", and we quote it below, almost in its entirety.

Miss Zell Charlotta Lee, 53, well known Sioux City naturalist, business women and clubwoman, died Tuesday night at a hospital after a long illness.

The organization which was Miss Lee's chief interest was the Sioux City Bird Club, which she had served as president for the last 10 years. In that capacity, she had gained a wide circle of friends and acquaintances. Through her promoting the Audubon screen tours for Sioux City, and attending meetings of the National Audubon Society, as well as regional and state meetings, she was known and recognized by scientists and naturalists throughout the United States. Those friendships with experts in the fields of ornithology, ecology and photography brought her national recognition.

Other organizations in which she was active were the First Methodist church, of which she was a member and where she had sung in the choir; the Sioux City Concert Course, Business and Professional Women's club,

League of Women Voters, Sioux City Camera club, Greater Sioux Athletic association, Woodbury county chapter of the Isaak Walton League and its auxiliary.

She had devoted much time to instructing boy and girl scouts in nature study. She had been a guest instructor at summer camps and a leader on nature hikes. Last spring, the student council of Woodrow Wilson junior school sent her a note of appreciation for those services to Sioux City youth.

Miss Lee came to Sioux City in 1936, having been transferred from the First Trust and Savings Bank at Anthon, an affiliate of the Toy banking interests, to assume a position of responsibility in the Toy National Bank here. She continued to gain promotions there until her illness forced her to relinquish her work.

She was born at Danbury, Iowa, November 22, 1899. During her early school years, the family moved to Anthon, where she finished high school, graduating with highest honors.

After a business course in Sioux City, she returned to Anthon to work in the office of an automobile firm. In 1929, she was employed by the First Trust and Savings Bank at Anthon, where she remained until being transferred to the Toy National Bank in Sioux City.

Her parents, Mr. and Mrs. William J. Lee, died many years ago, and her only brother, Lorry Lee, was lost at sea in 1944 while serving with the navy.



MISS LEE

GENERAL NOTES

Mockingbird at Coggon: the Closing Chapter.—In the March, 1953, Iowa Bird Life (pp. 14-15) I described a Mockingbird that wintered near our home. We had banded it with a band furnished by M. L. Jones. In mid-June Mr. Jones received this report from the banding section of U.S. Fish & Wildlife Service: "Shot by an unidentified boy by mistake, at Wellman, Iowa, April 27, 1953." We last saw the bird on April 13, and it had perhaps lost its sense of direction, since it traveled south in the spring.—MRS. WALTER PIKE, Coggon, Iowa.

Records from Southeast Iowa.—On July 17, 1953, a flock of 23 White Pelicans seen at Lake Odessa, Louisa County (Norwood Hazard with me); they were reported as arriving about July 12; 44 was the largest number seen at one time. One Snowy Egret seen at Nahant Marshes, Scott County, May 23, 1953 (Tom Morrissey with me). A flock of 10 birds, identified as Hutchins's Goose by Morrissey, seen at Lock No. 14 on May 2, 1953, by Morrissey and by me on May 3. Three Baird's Sandpipers seen at McCausland ponds on April 26, 1953. One Yellow-bellied Flycatcher seen at Duck Creek Park, Davenport, May 21, 1953; identified by call notes. Carolina Wrens, as many as three and four and believed to have nested in the Davenport region, were seen as late as June 10, 1953.—PETER C. PETERSEN, JR., Davenport, Iowa.

Notes from Webster City.—On December 21, 1952, as I was watching birds at the feeding station in my backyard, I was much surprised to see a Red-shafted Flicker fly to the suet. Its salmon-red wing and tail linings readily distinguished it from the common Yellow-shafted Flicker. I observed it at close range for several minutes, and identified it as a male by its red "whiskers". The only markings that indicated it might be a hybrid were two faint red marks on the back of the head where the large red patch is found on the Yellow-shafted Flicker. I saw the bird again at the feeder on December 24, 25 and 31, but it was not seen in the early months of 1953.

On May 14, 1953, while looking for birds in a small patch of woods near the Boone River at the south side of Webster City, I found a towhee scratching in the leaves. I identified it as a female Arctic Towhee by carefully observing the white spotting on the wings and back. I revisited this locality on the same day and saw the bird again. At a different place on this date I saw female Red-eyed Towhees and they differed very noticeably from the female Arctic Towhee.—DENNIS L. CARTER, Webster City, Iowa.

Bald Eagle Feeding on a Ring-necked Pheasant.—On March 24, 1950, while engaged on the Ring-necked Pheasant (*Phasianus colchicus*) research program of the Iowa Cooperative Wildlife Research Unit in Emmet County, Iowa, three Crows (*Corvus brachyrhynchos*) were seen hovering and calling over an adult Bald Eagle (*Haliaeetus leucocephalus*), standing on the ground in a machine-picked cornfield. As the author stopped his car, the eagle took flight and flew about 500 feet before dropping back to the ground. When the eagle flew, it was observed to be carrying a dead male Ring-necked Pheasant in the talons of its right foot. Twice the eagle made short flights as the car was moved in order to improve the point of observation. Each time the eagle took flight it carried the pheasant in its right foot. When the author departed at 10:30 a.m., the eagle was on the ground tearing at the pheasant carcass with its bill, eating pieces of flesh that it managed to tear off. Evidence was not available to determine whether the pheasant was killed by the eagle or whether it was being eaten as carrion. Bent (1937, Life Histories of North American Birds of Prey, U. S. Natl. Mus. Bull., 167:345) lists the bulk of the food of adult Bald Eagles as fish. However, he states, "the eagle's bill of fare is most varied, especially during the seasons when fish are not easily ob-

tained. It includes all kinds of waterfowl . . . grouse, ptarmigan, and even the smaller land birds. Many kinds of small mammals are taken In addition he states that, "eagles do not disdain carrion." No reference is made to Ring-necked Pheasants being used for food by the Bald Eagle.—HENRY G. WESTON, JR., Iowa Cooperative Wildlife Research Unit, Ames, now at Grinnell College, Grinnell, Iowa.

Waterfowl Migration at Little Wall Lake, Iowa, Spring, 1952.—Spring waterfowl migration counts were taken at Little Wall Lake, Hamilton County, approximately 2 miles south of Jewell, Iowa, three times a week from March 26 to May 28, 1952. Little Wall Lake is a 273-acre shallow lake, with a greatest depth of 5 to 6 feet. The lake was three-fourths covered with emergent vegetation, and submergent vegetation was prevalent. On March 23 about 5 acres of open water were seen, and by March 31 the entire lake was free of ice.

The table summarizes the periodic observations. The single Cinnamon Teal identified was a male.

Species	Date First Seen	Date Main Flight	Largest Concentration	Date Last Seen
Common Canada Goose	April 4	April 4	1	April 4
Blue Goose	April 11	April 11	13	April 11
Common Mallard	March 26	March 31	150	April 9
Gadwall	April 11	April 11	15	April 18
Baldpate	April 9	April 11	90	May 14
American Pintail	March 26	May 2	300	April 14
Blue-winged Teal	March 31	April 11	700	May 28
Cinnamon Teal	May 9	May 9	1	May 9
Shoveller	April 9	April 9	215	May 28
Wood Duck	May 7	May 7	3	May 7
Redhead	April 2	April 11	115	April 25
Ring-necked Duck	April 4	May 7	49	May 7
Canvas-back	March 26	April 4	100	May 7
Scaup Ducks	March 31	April 9	800	May 2
American Golden-eye	March 31	April 7	15	April 7
Buffle-head	April 2	April 11	50	April 21
Ruddy Duck	April 7	April 16	20	April 30
American Merganser	March 26	April 16	50	April 30
American Coot	March 31	April 18	2500	May 28

—JOHN A. FISH, DAVID F. SCOTT and GEORGE O. HENDRICKSON, Dept. of Zoology and Entomology, Iowa State College, Ames, Iowa.

A Sight Record of the Worm-eating Warbler.—On May 13, 1953, I was fortunate enough to see my first Worm-eating Warbler. I was working my way around a large area of backwater from Black Hawk Creek when a small bird flew up from the ground beside the water. It flew straight toward me and I was especially attracted by the buffy brown color of the breast. As the bird turned to dart back away from me I saw dark markings on the head. Fortunately it flew into a blossoming tree just a few feet away and worked its way out to the tip of a small branch, then turned upside down in bright sunlight. I got fine views of the dark stripes on the head several times, and was convinced that I was seeing a rare warbler. Finally I lost the bird, after which I hurried back to town to get Mrs. John Barlow as I was anxious to have someone else see it. However, we were unable to locate it again. At about 4:30 in the afternoon of the next day I returned to the area and again found the Worm-eating Warbler. Once more I closely observed the dark stripes on the head and its general coloration. It spent a great deal of time on the ground and as I approached

it would fly up into low trees and bushes, then drop down to the ground again. There was not the slightest doubt in my mind as to the identification. Mrs. Barlow and Mrs. King tried to find it the next morning but failed.—RUSSELL M. HAYS, Waterloo, Iowa.

Cooperation Needed for State Bird List.—Mention was made in the notes on the Mt. Vernon convention that work on the preparation of a state distributional check-list would be continued. Many of our members feel that the size of the State and diversified types of the territory which it comprises make it difficult, if not impossible, to make one list which classifies all species as summer residents, migrant, etc. For instance, several species can be enumerated which are common nesters in one or two sections but which are observed in others only as migrants.

With the cooperation of our membership which is state-wide it will be possible to prepare a list which will show, for each of the nine sections into which the State may be divided, the status of each species which has been observed in recent years.

It is hoped that in each local club one individual will be designated to compile a list of species for the area, classifying each as permanent resident, summer resident, winter resident, migrant, summer visitor, or winter visitor. The controversial question of relative abundance will not be considered, but species which are merely stragglers or accidentals should be so identified. Members who are not affiliated with local clubs are urged to assist in this undertaking by furnishing the same data for their respective territories.

The easiest way to submit the desired information is by the use of a state check-list, showing the status of each species by placing code letters such as PR for permanent residents beside the name of the species. All members should send their lists to the undersigned.—WOODWARD H. BROWN, 4815 Ingersoll Ave., Des Moines, Iowa.

The Christmas Bird Census will be taken between Dec. 20 and 30. The lists should follow the form of those published in previous March issues, and should reach the Editor not later than Jan. 15, 1954.

MEMBERSHIP NEWS

As usual, we have only meager information on summer activities and vacations of our members. Mr. and Mrs. George Crossley vacationed in Colorado. Dr. and Mrs. Peter Laude wrote that they "had a very wonderful vacation during the month of July in the East. We were able to spend four days on Bonaventure Island. The only trouble was that four days were not enough." Mr. and Mrs. Ernest Steffen took a 12,000-mile trip which included the Smoky Mountains, Florida, California, various places on the West Coast, and the North Shore Drive on Lake Superior. Miss Lillian Serbousek attended the Wilson Club meeting, held at the University of Michigan Biological Station, on Douglas Lake, Michigan, June 14-17. After that she spent some time on the Keweenaw Peninsula of Michigan waiting for the opening date of Isle Royale National Park, where several days were spent. Her best observation was a Kirtland's Warbler at nest.

Our past President, Charles C. Ayres, Jr., enjoyed a most unusual vacation—a wedding trip. On May 31 he was married to Miss Darleen Pullins, at the home of her parents. Mr. and Mrs. A. L. Pullins, at Council Grove, Kansas. After the ceremony they left for California by auto. They went by way of Albuquerque, New Mexico, and stopped at the Grand Canyon enroute. In Los Angeles they visited at the home of Harold Ayres, Mr. Ayres's brother. They had sidetrips to Capistrano Mission, to the beaches, mountains, etc.

Mr. Ayres wrote that they were "entertained by Mr. and Mrs. O. M. Stultz at a dinner in a charming restaurant with theatre adjoining in Padua Hills. The waiters and waitresses are also entertainers, singing Mexican songs and doing Mexican dances to the accompaniment of appropriate musical instruments. As we ate we were given special recognition as a newly married couple by being serenaded by the entertainers who grouped before our table and sang a Mexican song expressing congratulations and best wishes to us. They gave us a folder in which the song was translated into English. The meal consisted of Mexican food. Afterward we walked up the mountain road in the twilight, and as we looked down on the lights of the city some miles away we listened to the weird call of the Texas Nighthawk as it flew low over the wooded gullies in search of food."

After several weeks they left Los Angeles and went north through Yosemite, where they took many pictures and enjoyed the beautiful scenery. There were many birds and flowers, and at the higher altitudes snow was to be found close to the road. The *Sequoia gigantia* or the Big Trees of Yosemite were of especial interest, reaching a normal maximum height of 250 to 300 feet and with bark up to 2 feet thick. Leaving Yosemite, they went through Sacramento and Placerville, California, and on to Carson City. They spent the night at Lovelock, Nevada, and south of this place they saw an immature Golden Eagle soaring over the desert. They crossed Utah and Colorado, and over the Royal Gorge took pictures from the world's highest suspension bridge. More than 100 species of birds were observed on the trip, with the following listed at the most interesting or unusual: Scissor-tailed Flycatcher, Golden Eagle, Road-runner, Avocet, Black-necked Stilt, Black-throated Gray Warbler, American and Yellow-billed Magpies, White-throated Swift, Pacific and Texas Nighthawks, Black-chinned and Anna's Hummingbirds, White-headed Woodpecker, Violet-green Swallow, Calif. Bush-tit, Water Ouzel, Rock Wren, Bullock's and Hooded Orioles, Black-headed Grosbeak, Western Tanager, Green-tailed Towhee, Long-billed Curlew, Phainopepla, Mountain Bluebird, Valley Quail, Western Grebe.

DR. ERRINGTON A "FELLOW" OF A.O.U.

We are somewhat tardy in reporting that Dr. Paul Lester Errington of Iowa State College, was elected a "Fellow" of the American Ornithologists' Union at its 1952 meeting, held at Baton Rouge, Louisiana. This is the highest class of membership and a great honor coming from one of the largest and most important international ornithological organizations. It was also one of the few occasions on which this honor had been bestowed upon an Iowan. We congratulate Dr. Errington upon the well-earned recognition of his contributions to our science. He is the only Iowa resident to hold this distinction at the present time.

"Fellows" are elected at the annual meetings of the Union, from a very small list of carefully selected candidates. The class of Fellows is limited to 50 persons under 65 years of age (no limit over 65).

"Member" is the next class in the A.O.U. "Members" are also elected at annual meetings, after the nominees have been voted upon. This class is limited to 200, with about 185 now appearing upon the roll. In the past Iowa has furnished 15 or more Members for the Union, but at the present time only two are living in the state (Dr. Emil Witschi and Fred J. Pierce).

"Associates" in the Union are unlimited in number and are not voted into membership. This class of membership is open to all, and it is recommended to every serious bird student in Iowa. Associate members receive "The Auk", a very important ornithological quarterly. At present there are 29 Associate members in Iowa, as well as ten institutions which receive "The Auk."